



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/779,821

02/18/2004

Seung-hoon Kim

1793.1138

6813

21171

7590

05/12/2006

STAAS & HALSEY LLP

SUITE 700

1201 NEW YORK AVENUE, N.W.

WASHINGTON, DC 20005

EXAMINER

BLOUIN, MARK S

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 05/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/779,821	Applicant(s) KIM ET AL.	
	Examiner Mark Blouin	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13-15 and 25-28 is/are rejected.
- 7) ☒ Claim(s) 11, 12 and 16-24 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/27/05</u> | 6) <input type="checkbox"/> Other: ____. |

Detailed Action

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, and 15 rejected under 35 U.S.C. 102(b) as being anticipated by Tamayama (JP 06-068574).
3. Regarding Claim 1, Tamayama shows (Figs 1-5) an optical disc drive for a disc, comprising a main body (2), a spindle motor (6) attached to the main body; a tray (3) attached to the main body so as to be loadable/unloadable into/from the main body; and a disc holder (Fig. 4) rotatable by the spindle motor when the tray is in a loaded position, and joinable to a clamping hole of the disc so as to fix the disc.
4. Regarding Claim 2, Tamayama shows (Figs 1-5) an optical disc drive, wherein the optical disc drive further comprises: a rotatable shaft (9) installed through the tray with the disc holder joinable to one end of the rotatable shaft ; and a first gear (23) joinable to the other end of the rotatable shaft, wherein the spindle motor has a second gear (22) connectable to the first gear.
5. Regarding Claim 15, Tamayama shows (Figs 1-5) an optical disc drive comprising a tray with a circular through opening a spindle motor; and a disc holder joined to the opening, and magnetically (24) joined to the spindle motor and rotated by the spindle motor when the tray is loaded, wherein the disc holder comprises: a first member (16) and a second member (5), and a fixing member having hooks (18)

Art Unit: 2627

elastically (19) joinable to the clamping hole of the disc so as to fix the disc to the disc holder.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamayama (JP 06-068574) in view Omori et al. (USPN 6,246,654).

8. Regarding Claim 3, Tamayama shows (Figs 1-5) all the features described, *supra*, but does not show the spindle motor to be movable in an upward and downward direction with respect to the disc holder, however shows the upward and downward movement of the chucking mechanism.

Omori et al shows the spindle motor to be movable in an upward and downward direction (Fig. 22, arrow c) with respect to the disc holder.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the chucking mechanism of Tamayama with the spindle motor movement as taught by Omori et al. The rationale is as follows: One of ordinary skill in the art at the time the invention was made would have been motivated to provide the chucking mechanism of Tamayama with the spindle motor movement as taught by Omori et al in order to engage the chucking mechanism.

Art Unit: 2627

9. Regarding Claim 4, Tamayama shows (Figs 1-5) the optical disc drive, further comprising a first coupler (23) joinable to the disc holder, and a second coupler (22) is provided on the rotatable shaft of the spindle motor to be connectable to the first coupler in a male-female manner.

10. Regarding Claim 5, Tamayama shows (Figs 1-5) the optical disc drive according, wherein the first coupler and the second coupler are magnetically (24) attachable to each other.

11. Regarding Claim 6, Tamayama shows (Figs 1-5) the optical disc drive, wherein the optical disc drive further comprises a first rotatable shaft (9) installed through the tray with the disc holder joinable to one end of the first rotatable shaft, and a first coupler (23) joinable to the other end of the first rotatable shaft, and a second coupler (22) provided at a second rotatable shaft (10) of the spindle motor (6) to be connectable to the first coupler in a male-female manner.

12. Regarding Claim 7, Tamayama shows (Figs 1-5) the optical disc drive, wherein the second coupler (22) is installed to be elastically movable along the length of the second rotatable shaft (10) of the spindle motor.

13. Regarding Claim 8, Tamayama shows (Figs 1-5) the optical disc drive, wherein the disc holder is connectable to the spindle motor by a magnetic force (24) therebetween, to be rotated by the spindle motor (6).

14. Regarding Claim 9, Tamayama shows (Figs 1-5) the optical disc drive, wherein a magnet (24) is joined to the second rotatable shaft of the spindle motor, and at least a portion of the disc holder is formed with a material magnetically attachable to the magnet.

Art Unit: 2627

15. Regarding Claim 10, Tamayama shows (Figs 1-5) the optical disc drive, wherein at least a portion of the disc holder is formed with a magnet (24), and a member made of a material magnetically attachable to the magnet is joined to the second rotatable shaft (10) of the spindle motor.

16. Regarding Claim 13, Tamayama shows (Figs 1-5) the optical disc drive, wherein the tray comprises a circular opening, and the disc holder comprises a first member (23) and a second member (22) vertically joinable to each other to form an engagement groove (25) that is engageable with the circular opening, wherein the first member and the second member are joinable to each other from a top side and a bottom side of the tray (3) through the opening, to install the disc holder on the tray to be rotated.

17. Regarding Claim 14, Tamayama shows (Figs 1-5) the optical disc drive, wherein an insertion hole is formed at the second member (22) so that the rotatable shaft (10) of the spindle motor (6) is insertable into the insertion hole.

18. Claims 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamayama (JP 06-068574) in view Hui (US 20020179465 A1).

19. Regarding Claims 25-28, Tamayama shows (Figs 1-5) all the features described, *supra*, but does not show a fixing member having a plurality of elastically deformable arms with hooks to hook edge portions of the disc, wherein after the fixing member is seated on the second member, the first member is snap-fit, wherein when the disc is fitted to the fixing member, the arms are elastically deformed inward, wherein when the disc is seated on a friction member, the arms return to original positions, and the hooks hook edge portions of the clamping hole, to fix the disc to the disc holder.

Art Unit: 2627

Hui shows (Fig. 5A) a fixing member (36) having a plurality of elastically deformable arms (36A) with hooks to hook edge portions of the disc, wherein after the fixing member is seated on the second member, the first member is snap-fit, wherein when the disc is fitted to the fixing member, the arms are elastically deformed inward, wherein when the disc is seated on a friction member (flat base of 36), the arms return to original positions, and the hooks hook edge portions of the clamping hole, to fix the disc to the disc holder.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the chucking mechanism of Tamayama with the fixing member as taught by Hui. The rationale is as follows: One of ordinary skill in the art at the time the invention was made would have been motivated to provide the chucking mechanism of Tamayama with the fixing member as taught by Hui in order to hold the disc in place.

Allowable Subject Matter

20. Claims 11,12, and 16-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Blouin whose telephone number is 571-272-7583. The examiner can normally be reached on M-F from 6:00 to 3:30 pm.

Art Unit: 2627

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen, can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Blouin
Patent Examiner
Art Unit 2653
May 3, 2006

A. J. HEINZ
PRIMARY EXAMINER
GROUP ~~2653~~ 2627
